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ORIGINAL ARTICLE

Portfolio selection in euro area with CAPM and Lower Partial Moments models

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Abstract

This article selects portfolios using estimates given by CAPM and three Lower Partial Moments models (LPM). The CAPM assumption about investors' behaviour towards risk is that they are equally concerned with upside and downside risk. The LPM models, however, are based on the assumption that investors' utility functions weight downside risk more heavily than upside risk. The major difference between LPM models is their definition of upside and downside risk. The asset pricing models estimations and the corresponding portfolio selection were conducted on several euro area domestic stock indexes and the European Monetary Union stock market index (EMU). A pairwise comparison of portfolio performance is conducted through Sharpe ratios calculated separately for upside and downside market conditions. The results of this comparative analysis of different pricing models provide evidence that CAPM and one LPM model offer better protection against adverse market conditions than the other two LPM models studied.

Keywords Downside risk · Efficient portfolios · CAPM · Lower partial moments · Sharpe ratios · upside risk

JEL Classification F36 · G11 · G15

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